

# Mineral Industry Surveys

#### For information, contact:

Daniel Edelstein, Copper Commodity Specialist U.S. Geological Survey 989 National Center Reston, VA 20192

Telephone: (703) 648-4978, Fax: (703) 648-7757

E-mail: dedelste@usgs.gov

Michael Leahy (Data) Telephone: (703) 648-7964 Fax: (703) 648-7975 E-mail: mleahy@usgs.gov

Internet: http://minerals.usgs.gov/minerals

## **COPPER IN APRIL 2005**

According to preliminary data compiled by the U.S. Geological Survey, average daily U.S. copper mine production rose nominally in April from that in March and was about 18% higher than production in April 2004. Mine production for the first 4 months of 2005 was about 11% higher than that for the equivalent period of 2004. The year-on-year growth primarily may be attributed to the restart of the Robinson Mine (Nevada) and increased output at the Continental (Montana) and Chino (New Mexico) mines. Average daily smelter output in April rose by about 17% following restart of one smelter that had been closed for maintenance. Average daily electrolytic refinery production, which grew by about 4% in April, lagged behind the growth in smelter output. Corresponding to the growth in output from the Robinson and Continental mines, exports of copper in concentrate during the first quarter of 2005 rose to 22,400 metric tons (t), up from 7,420 t exported during the first guarter of 2004.

Copper prices continued their upward trend in April, the COMEX price averaging \$1.50 per pound, the highest monthly average since January 1989. In March and April, the London Metal Exchange Ltd. spot price premium over the COMEX price averaged 4.6 cents per pound and 4.0 cents per pound, respectively. This uncharacteristically large spread was last seen briefly in 1996 and compares with an average premium of only about 1 cent per pound in 2004. World commodity exchange stock levels during both periods of high price differential were at extremely low levels by historical standards. In 1996, exchange inventories fell to below 200,000 t, from a peak of almost 700,000 t in 1993, and currently exchange stocks have fallen from 1.3 million t in 2002 to only about 100,000 t in March and April of 2005.

According to preliminary International Copper Study Group (2005) data, the apparent refined copper balance for the first quarter of 2005, including revisions to data for January and February, indicated a production deficit of 59,000 t and, when seasonally adjusted, a surplus of 25,000 t. This compared with a production deficit of 452,000 t (seasonally adjusted, 364,000 t) for the same period in 2004. Total reported stocks of refined copper at the end of March were down by 35,000 t compared

with the stock level at yearend 2004. World refined copper use for the first quarter of 2005 fell by 5.5% compared with that of the first quarter of 2004, yet remained 4.2% above that for the first quarter of 2003. The significant year-on-year consumption changes for the first quarter of 2005 were: China, +6.4%; the European Union, -15%; Japan, -13%; South Korea, -8.5%; and the United States, -11%.

Revett Minerals Inc. reported that it had completed its initial public stock offering and that it had used the proceeds to purchase 65% of privately held Revett Silver Company, the sole owner of the Troy Mine (closed since 1993) and the Rock Creek development project in northwestern Montana. Revett Minerals reported that commercial production of copper-silver concentrate resumed at Troy in 2005 and during the first quarter Troy milled 182,000 t of ore grading 0.78% copper and 1.85 ounces per ton silver, to recover about 1,125 t of copper and 9,420 kilograms (kg) (303,000 ounces) of silver. Mill throughput was expected to rise from about 2,200 metric tons per day (t/d) of ore in March to full capacity of about 5,900 t/d during the second quarter of the year. At its Rock Creek project, Revett Minerals worked at continuing to advance permitting following a ruling in March by the U.S. District Court of Montana, which remanded the Biological Opinion back to the U.S. Fish and Wildlife Service for further consideration of the impact mining would have on grizzly bear and bull trout populations. Meanwhile, Revett was progressing with an economic and technical feasibility study, anticipated to be completed in early 2007, that could lead to the development of an approximately 9,000-t/d underground mine with a capacity to produce about 27,000 t of copper and 218,000 kg (7 million ounces) of silver in concentrate per year over at least a 9-year period (Revett Minerals Inc., 2005).

#### **References Cited**

International Copper Study Group, 2005, Copper—Preliminary data for March 2005: Lisbon, Portugal, International Copper Study Group press release, June 9, 1 p.

Revett Minerals Inc., 2005, Revett reports on first quarter results for 2005: Spokane, WA, Revett Minerals Inc. press release, May 13, 6 p.

 $\label{table 1} {\sf TABLE~1}$  SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES  $^1$ 

(Metric tons, unless otherwise specified)

				2005	
	Source				January -
	table <sup>2</sup>	2004 <sup>P</sup>	March	April	April
Production:					
Primary:					
Mine, recoverable	(2)	1,160,000	105,000 <sup>r</sup>	102,000	396,000
Refinery:					
Electrolytic:					
Domestic and foreign	(4)	671,000	52,600 <sup>r</sup>	52,900	218,000
Electrowon	(4)	584,000	47,200	47,700	178,000
Total	(4)	1,260,000	99,800 <sup>r</sup>	101,000	395,000
Secondary recoverable copper:					
Refineries	(5)	50,800	4,210	4,180	17,100
Ingot makers <sup>3</sup>	(5)	91,800	7,650	7,650	30,600
Brass and wire-rod mills	(5)	705,000	59,200 <sup>r</sup>	57,500	235,000
Foundries, etc. <sup>3</sup>	(5)	65,200	5,430	5,430	21,700
Smelter, total	(3)	542,000	44,000	49,700	173,000
Consumption:					
Apparent	(8)	2,570,000	193,000	NA	NA
Refined (reported)	(7)	2,410,000	185,000	190,000	747,000
Purchased copper-base scrap	(9)	1,150,000	97,500	94,300	386,000
Stocks at end of period:					
Total refined	(11)	136,000	128,000 <sup>r</sup>	124,000	XX
Blister, etc.	(11)	51,400	48,600 <sup>r</sup>	47,600	XX
Prices:					
U.S. producer cathode (cents per pound) <sup>4</sup>	(12)	133.938	153.946	154.606	152.680
Imports: <sup>5</sup>					
Ores and concentrates <sup>6</sup>	(14)	22,900		NA	NA
Refined	(14)	807,000	75,800	NA	NA
Exports: <sup>5</sup>					
Ores and concentrates <sup>6</sup>	(15)	24,200	4,570	NA	NA
Refined	(15)	118,000	2,830	NA	NA

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available. XX Not applicable. -- Zero.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

 $<sup>^2\</sup>mbox{Numbers}$  in parentheses refer to the significant tables where these data are located.

 $<sup>^3\</sup>mbox{Monthly}$  data and 2004 cumulative data estimated based on 2003 monthly average.

<sup>&</sup>lt;sup>4</sup>Source: Platts Metals Week.

<sup>&</sup>lt;sup>5</sup>Source: U.S. Census Bureau.

<sup>&</sup>lt;sup>6</sup>Copper content.

 $\label{eq:table 2} \textbf{MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES}^1$ 

	Rec	overable coppe	r		Contained copper	
Period	Arizona	Others <sup>2</sup>	Total	Electrowon	Concentrates <sup>3</sup>	Total
2004: <sup>P</sup>						
January - April	230,000 <sup>r</sup>	125,000	355,000 <sup>r</sup>	189,000	171,000 <sup>r</sup>	360,000
April	55,400	31,600	87,100	47,600	40,600	88,200
May	56,800	34,100	90,900	49,100	42,900	92,000
June	59,200	33,500	92,800	49,400	44,600	94,100
July	62,000	38,100	100,000	50,700	50,900	102,000
August	62,800	36,200	99,000	49,300	51,200	100,000
September	62,800	36,400	99,200	49,800	50,800	101,000
October	64,200	39,400	104,000	48,900	56,300	105,000
November	61,400	46,500	108,000	47,600	62,100	110,000
December	63,300	45,200	109,000	50,000	60,300	110,000
Year	723,000	435,000	1,160,000	584,000	590,000	1,170,000
2005:						
January	58,300 <sup>r</sup>	39,500	97,800 <sup>r</sup>	42,200	57,300	99,400
February	54,000 <sup>r</sup>	37,200 <sup>r</sup>	91,100 <sup>r</sup>	40,500	52,100 <sup>r</sup>	92,600 <sup>r</sup>
March	61,900 <sup>r</sup>	42,800 <sup>r</sup>	105,000 <sup>r</sup>	47,200	59,100 <sup>r</sup>	106,000 <sup>r</sup>
April	63,600	38,500	102,000	47,700	56,200	104,000
January - April	238,000	158,000	396,000	178,000	225,000	402,000

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised.

 $\label{eq:table 3} \textbf{COPPER PRODUCED AT SMELTERS IN}$  THE UNITED STATES, BY  $\textbf{SOURCE}^{1,2}$ 

## (Metric tons, copper content)

	Anode
Period	production
2004: <sup>P</sup>	
January - April	156,000
April	44,400
May	52,900
June	46,500
July	46,500
August	51,300
September	48,000
October	49,200
November	42,300
December	49,900
January - December	542,000
2005:	
January	42,700
February	36,100
March	44,000
April	49,700
January - April	173,000

Preliminary.

 $<sup>^{1}\</sup>mbox{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Includes production from, Idaho, Missouri, Montana, Nevada, New Mexico, and Utah.

<sup>&</sup>lt;sup>3</sup>Includes copper content of precipitates and other metal concentrates.

<sup>&</sup>lt;sup>1</sup>Includes blister, anode and copper from primary or secondary sources.

<sup>&</sup>lt;sup>2</sup>Data are rounded to no more than three significant digits; may not add to total shown.

 ${\it TABLE~4}$  PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY  $^1$ 

	Prii	mary materials			
	Electrolytically				Total
Period	refined <sup>2</sup>	Electrowon	Total	Scrap	refined
2004: <sup>P</sup>					
January - April	213,000 <sup>r</sup>	189,000	402,000 <sup>r</sup>	16,800	419,000 1
April	59,000	47,600	107,000	4,360	111,000
May	55,600	49,100	105,000	4,150	109,000
June	58,900	49,400	108,000	4,460	113,000
July	49,200	50,700	99,900	4,080	104,000
August	53,400	49,300	103,000	3,870	107,000
September	57,700	49,800	108,000	4,660	112,000
October	57,400	48,900	106,000	4,540	111,000
November	56,700	47,600	104,000	4,190	109,000
December	69,300	50,000	119,000	4,010	123,000
Year	671,000	584,000	1,260,000	50,800	1,310,000
2005:	= -				
January	54,900	42,200	97,000	4,380	101,000
February	57,400	40,500	97,900	4,380	102,000
March	52,600 <sup>r</sup>	47,200	99,800 <sup>r</sup>	4,210	104,000 1
April	52,900	47,700	101,000	4,180	105,000
January - April	218,000	178,000	395,000	17,100	412,000

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised.

 ${\it TABLE~5}$  COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP  $^1$ 

### (Metric tons, copper content)

	Refin	eries <sup>2</sup>	Ingot m	akers <sup>3</sup>	Brass and wi	re-rod mills	Foundrie	es, etc. <sup>3</sup>	
Period	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	Total <sup>4</sup>
2004: <sup>P</sup>									
January - April	5,340	11,500	5,570 <sup>r</sup>	25,000 <sup>r</sup>	235,000 r	14,100	8,240 <sup>r</sup>	13,500 <sup>r</sup>	318,000 <sup>r</sup>
April	1,340	3,020	1,390	6,260	60,500	2,900	2,060	3,370	80,800
May	1,340	2,820	1,390	6,260	54,600	3,090	2,060	3,370	74,900
June	1,340	3,120	1,390	6,260	55,900	2,910	2,060	3,370	76,300
July	1,340	2,740	1,390	6,260	56,400	2,440	2,060	3,370	76,000
August	1,340	2,540	1,390	6,260	56,800	2,450	2,060	3,370	76,200
September	1,340	3,320	1,390	6,260	55,200	2,690	2,060	3,370	75,600
October	1,340	3,210	1,390	6,260	56,800	2,670	2,060	3,370	77,100
November	1,340	2,850	1,390	6,260	50,500	2,670	2,060	3,370	70,500
December	1,340	2,680	1,390	6,260	48,000	3,300	2,060	3,370	68,400
Year	16,000	34,700	16,700	75,100	669,000	36,300	24,700	40,400	913,000
2005:									
January	1,340	3,050	1,390	6,260	57,700	2,780	2,060	3,370	77,900
February	1,340	3,040	1,390	6,260	54,900	3,110	2,060	3,370	75,500
March	1,340	2,870	1,390	6,260	56,300	2,980	2,060	3,370	76,500 <sup>r</sup>
April	1,340	2,840	1,390	6,260	54,200	3,220	2,060	3,370	74,700
January - April	5,340	11,800	5,570	25,000	223,000	12,100	8,240	13,500	305,000

Preliminary. Revised.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>From domestic and foreign source materials.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Electrolytically refined and fire-refined scrap based on source of material at smelter level.

<sup>&</sup>lt;sup>3</sup>Monthly data and 2004 cumulative data estimated based on 2003 annual data.

<sup>&</sup>lt;sup>4</sup>Does not include an estimate, based on reported 2003 data of 3,040 tons per month from new scrap and 1,830 tons per month of copper recovered from scrap other than copper-base.

 ${\bf TABLE~6}$  PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD SEMIFABRICATES  $^1$ 

	Prod	luction	Ship	oments	Stocks, e	nd of period
Period	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2004: <sup>P</sup>						
January - April	480,000 <sup>r</sup>	621,000 <sup>r</sup>	484,000 <sup>r</sup>	625,000 <sup>r</sup>	XX	XX
April	125,000	159,000	124,000	160,000	52,400	18,300
May	115,000	160,000	116,000	148,000	51,400	29,600
June	118,000	143,000	117,000	148,000	52,700	23,900
July	118,000	143,000	117,000	144,000	54,100	23,900
August	119,000	162,000	118,000	156,000	54,700	29,500
September	113,000	154,000	113,000	148,000	54,500	35,600
October	120,000	135,000	120,000	148,000	54,400	23,000
November	107,000	148,000	108,000	144,000	52,900	26,600
December	100,000	134,000	97,600	130,000	55,300	31,200
Year	1,390,000	1,800,000	1,390,000	1,790,000	XX	XX
2005:						
January	113,000	141,000	114,000	137,000	55,100	35,100
February	109,000	135,000	110,000	134,000	53,300	35,100
March	117,000	135,000	117,000	149,000	53,600	20,600
April	109,000	143,000	112,000	141,000	50,200	22,000
January - April	448,000	553,000	453,000	562,000	XX	XX

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised. XX Not applicable.

 $\begin{tabular}{ll} TABLE\ 7 \\ CONSUMPTION\ OF\ REFINED\ COPPER\ ^1 \\ \end{tabular}$ 

(Metric tons)

	Brass	Wire-rod	Other	
Period and item	mills	mills	plants <sup>2</sup>	Total
2004: <sup>P</sup>			•	
January - April	204,000	618,000 <sup>r</sup>	20,600 <sup>r</sup>	843,000 <sup>r</sup>
April	52,400	158,000	5,160	216,000
May	45,300	156,000	5,160	207,000
June	46,000	136,000	5,160	187,000
July	50,900	142,000	5,160	198,000
August	48,500	165,000	5,160	218,000
September	46,100	151,000	5,160	202,000
October	48,200	136,000	5,160	190,000
November	44,700	145,000	5,160	195,000
December	39,200	129,000	5,160	173,000
Year	573,000	1,780,000	61,900	2,410,000
2005:				
January	44,900	145,000	5,160	195,000
February	42,500	129,000	5,160	177,000
March	46,100	134,000	5,160	185,000
April:				
Cathodes	29,500	143,000	881	173,000
Wire bars			(3)	(3)
Ingots and ingot bars	1,440		1,760	3,200
Cakes and slabs	(3)		(3)	(3)
Billets and other	10,500	W	2,510	13,000
Total	41,500	143,000	5,160	190,000
January - March	175,000	551,000	20,600	747,000

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included with "Cathodes." -- Zero.

 $<sup>^{1}\</sup>mathrm{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2003 annual data.

<sup>&</sup>lt;sup>3</sup>Withheld to avoid disclosing company proprietary data; included with "Billets and others."

 $\label{eq:table 8} \textbf{U.S.} \ \textbf{APPARENT CONSUMPTION OF COPPER}^1$ 

D : 1	Refined copper	Copper in	Refined general	Refined	Stock change	Apparent
Period	production	old scrap <sup>2</sup>	imports <sup>3</sup>	exports <sup>3</sup>	during period	consumption
2004: <sup>P</sup>	_					
January - March	296,000	53,800 <sup>r</sup>	152,000	53,400	(236,000) r	683,000 <sup>r</sup>
March	101,000	18,100	62,500	23,900	(94,900)	252,000
April	107,000	17,300	54,100	28,400	(90,000)	240,000
May	105,000	17,300	56,300	3,700	(36,600)	212,000
June	108,000	17,400	40,400	2,720	(58,900)	222,000
July	99,900	16,600	75,600	5,470	(22,800)	209,000
August	103,000	16,400	65,500	9,350	(33,200)	209,000
September	108,000	17,400	73,800	570	(23,100)	222,000
October	106,000	17,300	60,200	3,890	(12,400)	192,000
November	104,000	16,900	75,300	2,460	(7,870)	202,000
December	119,000	17,400	51,100	8,390	(749)	180,000
Year	1,260,000	208,000	704,000	118,000	(521,000)	2,570,000
2005:						
January	97,000	17,200	77,900	4,460	6,290	181,000
February	97,900	17,600	66,500	3,230	(7,100)	186,000
March	99,800 <sup>r</sup>	17,300	72,000	2,830	(6,400) <sup>r</sup>	193,000
April	101,000	17,500	NA	NA	(4,440)	NA
January - March	295,000	52,100	216,000	10,500	(7,210)	560,000

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available.

 ${\it TABLE~9} \\ {\it CONSUMPTION~OF~PURCHASED~COPPER-BASE~SCRAP}^I$ 

## (Metric tons, gross weight)

	Sme	lters			Brass	and			
	and ref	ineries	Ingot m	akers <sup>2</sup>	wire-rod	$mills^3$	Foundries, etc. <sup>2</sup>		Total scrap
Period	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	used
2004: <sup>P</sup>									
January - April	5,400	11,600	7,410 <sup>r</sup>	36,400 <sup>r</sup>	294,000 <sup>r</sup>	14,400	14,400 <sup>r</sup>	14,800 r	398,000 <sup>r</sup>
April	1,350	3,050	1,850	9,110	75,400	2,930	3,600	3,700	101,000
May	1,350	2,770	1,850	9,110	68,500	3,200	3,600	3,700	94,100
June	1,350	3,150	1,850	9,110	70,900	3,040	3,600	3,700	96,700
July	1,350	2,760	1,850	9,110	71,100	2,620	3,600	3,700	96,100
August	1,350	2,550	1,850	9,110	72,600	2,580	3,600	3,700	97,400
September	1,350	3,290	1,850	9,110	70,300	2,820	3,600	3,700	96,000
October	1,350	3,230	1,850	9,110	71,500	2,810	3,600	3,700	97,200
November	1,350	2,890	1,850	9,110	63,300	2,780	3,600	3,700	88,500
December	1,350	2,700	1,850	9,110	60,300	3,440	3,600	3,700	86,000
Year	16,200	34,900	22,200	109,000	843,000	37,700	43,200	44,400	1,150,000
2005:									
January	1,350	3,080	1,850	9,110	72,400	2,910	3,600	3,700	98,000
February	1,350	3,080	1,850	9,110	69,800	3,280	3,600	3,700	95,800
March	1,350	2,900	1,850	9,110	71,800 <sup>r</sup>	3,170	3,600	3,700	97,500
April	1,350	2,870	1,850	9,110	68,400	3,370	3,600	3,700	94,300
January - April	5,400	11,900	7,410	36,400	282,000	12,700	14,400	14,800	386,000

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Includes reported monthly production of copper from old scrap of copper-base, an estimate for annual reporters, and a monthly average of copper from non-copper-base materials based on 2003 data.

<sup>&</sup>lt;sup>3</sup>Source: U.S. Census Bureau.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

 $<sup>^2\</sup>mbox{Monthly}$  data and 2004 cumulative data estimated from 2003 annual data.

<sup>&</sup>lt;sup>3</sup>Consumption at brass and wire-rod mills assumed equal to receipts.

 $\label{table 10} {\tt CONSUMPTION\ OF\ PURCHASED\ COPPER-BASE\ SCRAP^{1,\,2}}$ 

	2004 <sup>P</sup>			2	005	
Scrap type and processor	January - April	Year	February	March	April	January - April
No. 1 wire and heavy:			-			
Smelters and refiners	22,700 <sup>r</sup>	68,200	5,690	5,690	5,690	22,700
Brass and wire-rod mills	141,000 <sup>r</sup>	394,000	31,500	31,400	32,100	129,000
No. 2 mixed heavy and light:						
Smelters and refiners	8,980 <sup>r</sup>	27,200	2,440	2,260	2,230	9,360
Brass and wire-rod mills	2,850	6,250	488	488	411	1,880
Total unalloyed scrap:						
Smelters and refiners	31,700 <sup>r</sup>	95,400	8,120	7,950	7,910	32,100
Brass and wire-rod mills	144,000 <sup>r</sup>	401,000	32,000	31,900	32,500	131,000
Red brass: <sup>3</sup>						
All plants	13,100 <sup>r</sup>	38,900	3,080	3,260	2,990	12,600
Leaded yellow brass:	•					
All plants	110,000 <sup>r</sup>	323,000	16,900	16,900	15,000	63,700
Yellow and low brass:						
All plants	13,500	40,100	14,600	15,600	14,100	59,600
Cartridge cases and brass:	•					
All plants	29,600 <sup>r</sup>	86,600	7,660	8,110	7,680	31,800
Auto radiators:	•					
Smelters and refiners	8,580 <sup>r</sup>	25,700	2,150	2,150	2,150	8,580
Bronzes:	•					
Smelters and refiners	2,670 <sup>r</sup>	8,010	667	667	667	2,670
Brass mills	2,180	6,350	396	342	601	1,800
Nickel-copper alloys:						
All plants	7,290 <sup>r</sup>	20,000	1,330	1,700 <sup>r</sup>	1,850	6,350
Low grade and residues:						
Smelters and refiners	4,200 <sup>r</sup>	12,600	1,050	1,050	1,050	4,200
Other alloy scrap: <sup>4</sup>						
Smelters and refiners	368 г	1,100	92	92	92	368
Brass mills	1,960	4,860	477	452	355	1,640
Total alloyed scrap:						
Smelters and refiners	29,100 <sup>r</sup>	87,200	7,260	7,260	7,260	29,100
Brass mills	164,000	480,000	41,200	43,100	39,200	164,000
Total scrap:						
Smelters and refiners	60,800 <sup>r</sup>	183,000	15,400	15,200	15,200	61,200
Brass and wire-rod mills	308,503 г	880,291	73,119	74,968	71,773	295,197
PPreliminary Prevised						

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised.

<sup>&</sup>lt;sup>1</sup>Does not include: consumption by foundries, chemical plants, and miscellaneous manufacturers, estimated to total about 7,300 tons of scrap per month based on 2003 annual data; monthly data include estimates of about 11,000 tons of scrap per month consumed by ingot makers.

<sup>&</sup>lt;sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>3</sup>Includes composition turnings, silicon bronze, zincy bronze, railroad car boxes, cocks and faucets, gilding metal, and commercial bronze.

 $<sup>^4\</sup>mathrm{Includes}$  refinery brass, beryllium copper, phosphor copper, and aluminum bronze.

TABLE 11 COPPER STOCKS AT END OF PERIOD $^1$ 

				Re	fined copper			
	Crude		Wire-rod					Total
Period	copper <sup>2</sup>	Refineries <sup>3</sup>	$mills^3$	Brass mills <sup>3</sup>	Other <sup>4</sup>	Comex <sup>5</sup>	$LME^6$	refined
2004: <sup>P</sup>								
April	62,900	8,510	19,100	16,700	4,870	156,000	126,000	331,000
May	69,100	11,100	27,500	18,000	4,870	120,000	114,000	295,000
June	60,600	5,680	26,600	19,600	4,870	86,300	92,800	236,000
July	62,200	6,780	29,700	19,100	4,870	71,700	80,800	213,000
August	65,700	8,640	21,400	22,600	4,870	55,900	66,400	180,000
September	71,600	7,830	15,200	24,900	4,870	44,900	59,000	157,000
October	72,200	9,210	25,200	20,300	4,870	41,300	43,400	144,000
November	70,600	13,100	24,300	18,200	4,870	38,500	37,500	136,000
December	51,400	10,300	20,300	21,500	4,870	43,700	35,000	136,000
2005:								
January	66,100	12,300	24,300	24,000	4,870	41,600	34,900	142,000
February	46,700	10,600	20,800	22,200	4,870	42,500	33,900	135,000
March	48,600 <sup>r</sup>	6,910 <sup>r</sup>	25,000	20,900	4,870	39,300	31,500	128,000
April	47,600	8,420	31,100	20,300	4,870	27,300	32,100	124,000

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised.

TABLE 12 AVERAGE PRICE OF COPPER IN THE UNITED STATES AND ON THE LONDON METAL EXCHANGE

## (Cents per pound)

	U.S. producers	Comex	LME
	delivered price	first	cash price
	*.		
Period	cathode <sup>1</sup>	position <sup>2</sup>	Grade A
2004:			
April	133.646	128.481	133.694
May	126.097	120.968	123.960
June	126.008	120.862	121.832
July	132.078	126.812	127.342
August	133.015	127.752	129.064
September	136.680	131.414	131.283
October	140.273	135.007	136.575
November	146.599	141.333	141.620
December	150.897	145.631	142.633
Year	133.938	128.972	129.958
2005:			
January	150.261	144.995	143.751
February	151.905	146.639	147.544
March	153.946	148.680	153.268
April	154.606	149.340	153.938
January - April	152.680	147.414	149.625

<sup>&</sup>lt;sup>1</sup>Listed as "U.S. producer cathode."

Sources: Platts Metals Week and American Metal Market.

 $<sup>^{1}\</sup>mathrm{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Copper content of blister and other materials in transit and in process of refining.

<sup>&</sup>lt;sup>3</sup>Stocks of refined copper as reported; no estimates are made for nonrespondents.

<sup>&</sup>lt;sup>4</sup>Monthly estimates based on reported and 2003 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

<sup>&</sup>lt;sup>5</sup>Commodity Exchange Inc., New York.

<sup>&</sup>lt;sup>6</sup>London Metal Exchange Ltd., U.S. warehouses.

<sup>&</sup>lt;sup>2</sup>Listed as "Comex high grade first position."

 ${\it TABLE~13}$  NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

			Dealers (	New York)
		•		Red brass
	Brass mills	Refiners	No. 2	turnings and
Month	No. 1 scrap	No. 2 scrap	Scrap	borings
2004:				
April	127.30	107.18	90.91	58.82
May	119.65	96.28	89.00	55.00
June	119.82	96.55	89.00	55.00
July	125.52	101.33	89.00	55.00
August	126.64	101.73	89.00	55.00
September	127.29	106.19	89.00	55.00
October	130.43	113.38	89.00	55.00
November	135.40	118.15	89.00	55.00
December	139.14	121.00	89.00	55.00
Year	126.41	107.62	86.86	55.14
2005:				
January	139.40	119.50	89.00	55.00
February	139.89	121.67	89.00	55.00
March	142.52	123.43 <sup>r</sup>	89.00	55.00
April	143.52	126.00	89.00	55.00
January - April	141.33	122.65	89.00	55.00

rRevised.

Source: American Metal Market.

 ${\it TABLE~14}$  U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS  $^1$ 

(Metric tons, copper content)

	Ore and concentrate			Matte, as	Matte, ash and precipitates			ter and anode	es	Refined		
		20	05		2005			200	2005			
Country or	or January -			January -				January -			January -	
territory	2004	March	March	2004	March	March	2004	March	March	2004	March	March
Brazil								10	10	15,600	3,640	8,980
Canada	516			99		15	75,500	8,020	22,700	278,000	23,300	73,000
Chile							48,900	3,240	10,000	311,000	22,800	81,900
Germany										21,000	3,980	8,030
Japan				(2)			19		(2)	4,380	524	1,210
Kazakhstan											1,280	1,280
Mexico	22,400			206		34	8,630		1,450	19,300	9,490	17,000
Namibia							7,710					
Peru							10,200			152,000	10,200	35,500
Taiwan				1,330	139	269				(2)		
Other				45		51	16		r	6,120	559	567
Total	22,900			1,680	139	369	151,000	11,300	34,200	807,000	75,800	228,000

Revised. -- Zero.

Source: U.S. Census Bureau.

10

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Less than 1/2 unit.

 $\label{eq:table 15} \text{U.s. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS}^1$ 

(Metric tons, copper content)

	Ore and concentrate			Matte, as	Matte, ash and precipitates			ter and anode	es	Refined		
		2005 January -			2005 January -			2005 January -			2005	
Country or												January -
territory	2004	March	March	2004	March	March	2004	March	March	2004	March	March
Belgium	6		39	45	37	37	1,320	175	581	998		49
Canada	18,200	2,380	5,590	18,800	2,270	5,720	22,400	1,900	5,650	2,230	209	853
China	2,340			52	758		307	40	121	23,900	576	2,490
Costa Rica			9,740			1,890				1,300		
Germany	32		3	23	10		1,880	90	230	70		111
Hong Kong	229			12		15	3,410	303	730	11		
India	56	6	149	21	1	1	164		26	2,940	920	1,950
Italy						1	1,570	1,080	1,510	21,100	13	13
Japan	2,510		4,620	122	17	(2)	705	351	588	66		
Korea, Republic of	23		1	8		65	8,910	15	100	5,060	8	75
Mexico	115	2,160	2,160	2,650	55		221	22	78	20,500	1,040	4,770
Netherlands				37		359				1,280		(2)
Saudi Arabia									11	7,840		
Taiwan	109			5			1,320	160	399	29,000		4
United Arab Emirates	5			5			669	64	64			
United Kingdom	37		21	87	8	16	474		57	590		40
Other	577	22	60	226 <sup>r</sup>	16	22	3,080 r	148	1,050	1,370 <sup>r</sup>	63	158
Total	24,200	4,570	22,400	22,100	3,170	8,130	46,400	4,350	11,200	118,000	2,830	10,500

<sup>&</sup>lt;sup>r</sup>Revised. -- Zero.

Source: U.S. Census Bureau.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Less than 1/2 unit.

 $\label{eq:table 16} \text{U.S. COPPER SCRAP IMPORTS}^1$ 

		Unalloyed		Alloyed					
		20	05		2005				
Country or			January-			January-			
territory	2004	March	March	2004	March	March			
Canada	6,370	584	1,690	44,500	3,620	12,100			
China	1			448	1	19			
Costa Rica	1,400	167	422	516	7	62			
Dominican Republic	446		64	432	33	179			
Germany	48	3	6	1,130					
Guatemala	271	20	37	1,050	120	340			
Honduras	1,430	201	617	625	35	123			
Hong Kong	1								
India						81			
Japan	65	3	11	145	36	82			
Korea, Republic of				7					
Malaysia				231	60	108			
Mexico	10,300	922	2,260	22,100	2,200	6,020			
Taiwan				1,480	28	53			
United Kingdom	554	29	89	1,030	83	122			
Other	2,550	232	649	4,570	363	1,480			
Total	23,400	2,160	5,840	78,300	6,580	20,700			

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 17
U.S. COPPER SCRAP EXPORTS<sup>1</sup>

			Unallo	yed	Alloyed							
				2005			,		2005			
		No. 1		No. 2		Other			Segregated		Unsegregated	
Country or			January-		January-		January-		January-		January-	
territory	2004	March	March	March	March	March	March	2004	March	March	March	March
Bangladesh									1,270	2,790		
Belgium	3,850					56	196	8,200	28	300	472	1,500
Canada	33,300					2,920	7,900	15,000	501	955	635	2,450
China	222,000	7,630	18,400	10,900	27,600	3,870	11,300	239,000	7,850	24,100	8,130	20,800
Germany	8,830	62	281	80	320	1,160	2,610	13,800	134	941	712	2,110
Hong Kong	3,910	479	856	114	344	78	90	11,000	610	1,270	1,090	2,190
India	4,160	41	126	138	182	361	1,010	45,100	2,040	4,720	62	352
Japan	7,930			127	526	696	1,630	9,660	735	1,790	210	576
Korea, Republic of	22,400	737	1,520	995	2,580	929	2,770	16,300	1,180	3,020	538	1,250
Mexico	4,560	55	191	19	200	19	154	1,570	74	75	55	93
Spain	37		2	39	77			2,740				
Taiwan	11,300	4	70	604	1,510	168	791	13,700	609	1,830	55	573
Thailand							119	1,250	113	268		
United Kingdom	34					57	57	4,560	33	34	284	755
Other	2,990		16	27	75	166	338	7,210	281	433	420	905
Total	325,000	9,010	21,400	13,000	33,500	10,500	28,900	389,000	15,500	42,500	12,700	33,600

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.